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ABSTRACT

The Resident Tutor Project, funded under Title I of the 1965 Elementary Secondary Education Act, was initiated in June 1968, in an effort to prevent skill deficits from progressing to such a point that they are beyond remediation within the relatively short span of a child's school years. The project was designed to provide additional resources to supplement classroom learning experiences through employing college students to tutor elementary and secondary students on a regular weekly schedule. It was hoped that the availability of tutoring service would provide students with the following: immediate tutorial service when learning difficulties become apparent; reinforcement in basic skill areas; opportunity for personal relationships with adults. During the 1971-72 school year, the Resident Tutor Project supplied tutors for 3,538 students in 68 elementary schools and in one junior and one senior high school in the Cleveland Public School system. In addition, 408 students in 21 non-public elementary schools and two non-public senior high schools received project services. During the summer school of 1972, 4,244 students in Grades One through 12 received tutoring service in the Cleveland Public Schools. No non-public schools were served in the summer. (Author/JM)

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RESIDENT TUTOR PROJECT

TITLE I FUND

FUND NUMBER 58-7

1971-72 EVALUATION

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RESIDENT TUTOR PROJECT

I. INTRODUCTION

A. Needs and Rationale

The results of standardized tests administered as part of the city-wide testing program conducted by the Cleveland Public Schools have shown that significant numbers of children in Title I schools are functioning approximately one to two years below grade level in basic reading and math skills. The gap between performance and grade level becomes more pronounced at the upper grade levels, suggesting a cumulative deficit. The Resident Tutor Project was initiated in June, 1968 in an effort to prevent skill deficits from progressing to such a point that they are beyond remediation within the relatively short span of a child's school years. The project was designed to provide additional resources to supplement classroom learning experiences through employing college students to tutor elementary and secondary students on a regular weekly schedule. It was hoped that the availability of tutoring service would provide students with the following:

- Immediate tutorial service when learning difficulties become apparent;
- Reinforcement in basic skill areas;
- Opportunity for personal relationships with adults.

1. Objectives

The primary goal of the Resident Tutor Project was to improve achievement in basic academic skills of elementary

and secondary school children by providing tutors to support classroom instruction. The project was directed primarily at prevention of cumulative academic deficits and, secondarily, at reinforcement of learning of specific concepts.

The specific objectives of the project fall into two categories: process objectives and product objectives. Process objectives are objectives related to the programmatic ingredients of the project, that is, the degree to which the specified staff, organization and procedures were implemented. Product objectives are related to the outcomes of the project in terms of changes in childrens' performance that are expected to result from the successful attainment of the process objectives.

a. Process Objectives

The process objectives as outlined in the proposal for the 1971-72 operation were as follows:

(1) Tutors will be hired as additional resources to alleviate learning problems and supplement specific learning skills.

(2) Tutors will be assigned either to a school or to one of the other Title I projects.

(a) School-Assigned Tutors

. Training of 600 tutors assigned to the Title I public elementary and secondary schools and the non-public elementary schools will be the responsibility of the Resident Tutor Project.

. Pupils with specific problems in reading and mathematics will be identified by the classroom teachers.

. Assignment of pupils for tutorial services in the schools will be the responsibility of the school principal and supervising teacher.

. Tutorial services will be made available immediately upon diagnosis of specific learning problems.

(b) Title I Projects Assigned Tutors

. Training of tutors in these projects will be the responsibility of the project to which they are assigned.

. Male tutors will be assigned to the Child Development Project to serve as models of male identification.

. Tutors will be assigned to the Pre-Primary Program for Special Education Children to assist the classroom teachers in teaching basic skills and to serve as models of male identification.

. Tutors will be assigned to the reading projects: Reading Improvement, Diagnostic Reading Clinic, and Talking Typewriter--to assist reading consultants in alleviating specific reading deficits.

. Tutors will be hired and assigned to English-as-a-Second-Language to assist bilingual teachers in helping children with deficits in speaking and comprehension of the English language.

b. Product Objectives

The product objectives as outlined in the proposal for the 1971-72 operation were as follows:

(1) After project participation in any one of the schools, participants will show a greater change ($p < .05$) in specific concepts in which they were tutored than a comparable group of non-participants, based on performance on a standardized test and on teachers' ratings of degree of improvement.

(2) Tutor-assigned classrooms will show higher scores on city-wide administered achievement tests compared to non-tutor-assigned classrooms.

(3) Tutor-assigned classrooms will show higher mean attendance than that of non-tutor-assigned classrooms during the 1971-72 school year.

(4) After project participation in the schools, classroom teachers will report more positive attitudes and increased motivation of participants compared to a comparable group who were not in the project.

B. Historical Background

The Resident Tutor Project was initiated in the summer of 1968 and since its inception has provided tutoring service to a total of approximately 20,000 elementary and secondary children. Project evaluation reports during the first three years of operation indicated the following key findings.

1. In 1968-69 the participating students' mean attendance rate increased as compared to the decreasing mean attendance of the general school population.

2. In 1969-70 gains in reading and math skills appeared to be a direct function of the duration of the child's tutorial experiences based on standardized measures and teachers' ratings.

3. In 1970-71 the extreme variability in the frequency, length, and duration of tutoring sessions, the variability in tutor turnover and the high degree of sample shrinkage prevented a valid assessment of the project's impact on basic skills achievement. However, a sample of 128 teachers rated the programs impact on basic reading skills as moderately to very effective in 50% of the cases and its impact on basic math skills as moderately to very effective in 52% of the cases. The most effective element of the program as seen by the teachers was the availability of individualized instruction tailored to each child's needs.

C. Summary of Operations

1. Participants

During the 1971-72 school year, the Resident Tutor Project supplied tutors for 3,538 students in 68 elementary schools and in one junior and one senior high school in the Cleveland Public School system. In addition, 408 students in 21 non-public elementary schools and two non-public senior high schools received project services. A total of 3,946 students

were provided with tutoring service during the school year. A breakdown by grade level of the number of children served is presented in Table 1.

Table 1

Number of Children Served by the Resident Tutor Project During 1971-72 School Year

Grade Level	Number of Children
1-3	1,815
4-6	1,642
7-9	96
10-12	393
TOTAL	3,946

During the summer school of 1972, 4,244 students in Grades 1 - 12 received tutoring service in the Cleveland Public Schools. No non-public schools were served in the summer.

2. Program Costs

During the 1971-72 school year approximately $706,069 of Title I funds were spent on the Resident Tutor Project. Distributed over the 3,946 students served during the school year, this results in a per pupil expenditure of approximately $179.

During the six-week program operated during the summer of 1972, approximately $176,080 of Title I funds were spent in delivering project services to 4,244 students. This represents a per pupil expenditure of approximately $41 for the summer period.

An examination of expenditures over the four years of operation of the Resident Tutor Project shows that the per pupil cost of the program has increased. Table 2 shows per pupil costs for each year of the program from 1968-69 through 1971-72.

Table 2

Per Pupil Expenditures for Resident Tutor Project Over Four Years of Operation

School Year	Per Pupil Expenditure	
	School Year	Summer
1968-69	$ 79	*
1969-70	$125	$60
1970-71	$123	$36
1971-72	$179	$41

The table shows that the per pupil cost of project operations during the school year has increased by 127%. Per pupil expenditures for the summer operation have fluctuated and for the 1971-72 operation were actually 32% lower than the first summer for which data are available. The accuracy of per pupil expenditure figures is highly dependent, of course, upon the accuracy of the count of the number of students served. Establishing an accurate count of students is difficult in a project in which in the course of the year a student may be served by several different tutors and in which students may receive on-again off-again service as the need arises. The per pupil expenditure figures should be interpreted with these limitations in mind.

D. Questions to Be Answered by Evaluation

The evaluation of the 1971-72 operation of the Resident Tutor Project was addressed to the following questions.

1. Were the project services implemented according to plan?

2. What was the impact of the project on the children served?

II. HIGHLIGHTS OF FINDINGS

A. Summary of Key Findings

1. Evaluation Question 1: Were the Project Services Implemented According to Plan?

FINDING: Process evaluation data indicated that the program was staffed and implemented essentially according to plan. Although teachers and principals identified several weaknesses in program operation, the overall response to the program was enthusiastic.

a. Participants

During 1971-72 the Resident Tutor Project served a total of 3,946 elementary and secondary children in 70 Title I schools in the Cleveland system and 23 Title I non-public schools. During the summer school of 1972, approximately 4,244 children were served in the Cleveland Public Schools.

b. Project Staff

A full-time project manager, four full-time consultant teachers and an instructional aide were assigned as proposed. The one part-time and five full-time clerks provided were one clerk short of the staffing pattern proposed.

c. Tutors

Of the 763 tutors hired by the project, 678 were assigned to service in the Cleveland Public Schools and 85 were assigned to non-public schools. An additional 85 tutors were assigned to serve in the following Title I programs:

- English as a Second Language Program
- Pre-Primary Program
- Child Development Program
- Latin Cultures Program
- Talking Typewriter Program
- Reading Improvement Program
- Diagnostic Reading Clinic

d. Operations

Tutors were assigned to a school upon the principal's request. The principal assigned the tutors to individual teachers needing service. Schools were given priority in the assignment of tutors on the basis of enrollment and the school's rank on the poverty index. Tutors worked a minimum of two hours per day, two days per week, tutoring children identified by the classroom teacher as needing help in learning specific concepts or needing reinforcement in basic skills.

e. In-Service Training

Pre-service and in-service training were mandatory for all tutors. Each tutor attended a three-hour pre-service workshop before assignment to a school and another three-hour workshop within two weeks after being assigned. The workshops covered the goals and philosophy of the project, the tutors' responsibilities and techniques for use in reinforcement of reading and math skills. Separate in-service seminars were offered to representative supervising teachers from tutor-assigned schools to help them find the most effective ways to make use of the tutors.

f. Parent Involvement

Parent involvement in the project was minimal. Although a parent advisory committee was formed, it met only once during the year. To notify the parents of tutees that their child was receiving tutoring service and to invite the parent to the school.

g. Project Strengths

Principals and teachers alike identified the element of the project making the greatest contribution to be the individualized one-to-one contact between tutor and tutee.

h. Project Weaknesses

Principals regarded tutor turnover as the greatest weakness in the project. Teachers, on the other hand, idenfified lack of sufficient tutoring time, tutor training, and poor communication and coordination between teacher and tutor as the main weaknesses.

i. Principal and Teacher Recommendations

The recommendations made by principals and teachers for future project operations were related directly to the weaknesses they had identified. Principals suggested reducing tutor turnover; teachers recommended providing more training for tutors, providing more time for tutoring, providing more time for teacher-tutor conferences, and recruiting more tutors.

2. Evaluation Question 2: What was the Impact of the Project on the Children Served?

FINDING: Teachers' ratings indicated that the Resident Tutor Project had, overall, a moderate impact on improving the reading and math performance of the tutees and their attitude toward school.

a. Reading and Math Performance

Teachers were asked to indicate how many of their children received tutoring in reading and math and then to indicate how many had made varying degrees of progress in each of these areas. The results of their ratings are summarized in Table A.

Table A

Mean Teacher Ratings of Tutees' Progress in Reading and Math Skills

Subject Area Tutored	Mean Percentage of Children Rated			
	Marked Improvement	Improvement	Some Improvement	Little or No Improvement
Reading	23%	23%	35%	19%
Math	33%	22%	31%	14%

Improvement in math was rated as slightly higher than improvement in reading, but in each subject area about half the students were rated as making moderate to marked improvement.

b. Attitude

Teachers were asked to indicate how many of their tutees had made varying degrees of improvement in their attitude toward school. A summary of their responses appears in Table B.

Table B

Mean Teachers' Ratings of Changes in Tutees' Attitude and Motivation

Rating	Mean Percentage of Children Rated
Marked Improvement	38%
Improvement	22%
Some Improvement	29%
Little or No Improvement	11%

Slightly more children were rated as having made moderate to marked improvement in attitude than were similarly rated on reading and math performance.

B. Implications and Recommendations

1. Discussion of Results

The data collected for the 1971-72 operation of the Resident Tutor Project showed that the project was implemented according to plan. The project staff was recruited, trained, and assigned as proposed. Although the nature of the project made the collection of objective measures of achievement difficult, ratings by classroom teachers indicated that tutoring service had a moderate impact on the reading and math performance of the children served. Teachers' ratings indicated a slightly greater impact on improving the attitudes of the tutees than on achievement.

Although the reaction to the project of principals and teachers alike was positive, both groups found some problems with the operation of the project. The principals considered tutor turnover a detriment to smooth operation and several suggested obtaining a commitment from tutors for a longer term of service. However,

considering the fact that tutors' opportunities to work depend to a large extent upon their college class schedules which may change every quarter, tutor turnover may be an unfortunate but unavoidable fact of life that the schools must live with.

Teachers were concerned not so much with tutor turnover as with the amount of time tutors were able to spend with children, the adequacy of the tutors' training, and the opportunities for communication between teacher and tutor. The time tutors spend with the children and the time for teacher-tutor conferences again depend to a certain extent on the tutor's schedule and time commitment. Tutors' training, however, is an area totally within the control of the project staff, and steps might be taken to secure more teacher input into the content of the tutor in-service workshops. On the other hand, it is possible that teachers might expect too much from tutors and that they need more help in understanding how to use this resource effectively, considering the tutors' limitations as well as the opportunities for improved instruction they make possible. Although in-service training addressed specifically to this end is offered to teachers, it is offered to representative teachers from each school served, and the representatives are expected to carry the word back to the other teachers through in-service meetings at the local school level. According to the project manager, very little in the way of in-service is conducted at the schools, primarily because of lack of time.

Despite problems identified by teachers and principals, the prevailing opinion among those interviewed was that the

Resident Tutor Project was valuable and should be continued.

2. Recommendations

In light of the evaluation information collected during the 1971-72 operation of the Resident Tutor Project, the following recommendations are made:

a. It is recommended that steps be taken to increase the involvement of the project parent advisory committee through encouraging regularly scheduled meetings with the participation of project staff.

b. It is recommended that teacher-identified training requirements be built into the in-service workshops for tutors.

c. It is recommended that more time for teacher-tutor discussions of the tutee and of the tutor's role be build into the program, perhaps as a requirement for a teacher's receiving the tutoring service.

d. It is recommended that product evaluation be directed toward assessing the success with which a sample of children achieve specific, individualized, short=term instructional objectives rather than toward measuring general improvement in reading and math through the administration of standardized tests.

III. PROJECT DESCRIPTION

A. Participant Characteristics

Children were selected for tutoring service according to the following criteria:

- P.L.R. of stanine 2 or above
- Needed reinforcement in a specific skill area
- Behind in basic skill achievement level by 1 - 1 1/2 years
- Needed personal association with a successful adult figure

During the 1971-72 school year, the Resident Tutor Project supplied tutors for 3,538 students in 68 elementary schools, and in one junior and one senior high school in the Cleveland Public School system. In addition, 408 students in 21 non-public elementary schools and two non-public senior high schools received project services. A total of 3,946 students were provided with tutoring service during the school year. A breakdown by grade level of the number of children served is presented in Table 3.

Table 3

Number of Children Served by the Resident Tutor Project During 1971-72 School Year

Grade Level	Number of Children
1-3	1,815
4-6	1,642
7-9	96
10-12	393
TOTAL	3,946

During the summer school of 1972, 4,244 students in Grades 1 - 12 received tutoring service in the Cleveland Public Schools. No non-public schools were served in the summer.

B. Project Operations

1. Staffing

a. Project Manager

Overall supervision of the Resident Tutor Project was the responsibility of a full-time project manager. The project manager performed the following duties:

- Recruitment of tutors;
- Organization of pre-service and in-service sessions for tutors and teachers;
- Assignment of tutors to schools;
- Supervision of consultant teachers, instructional aide and clerks;
- Maintenance of liaison with Title I project managers whose programs receive the service of the Resident Tutor Project;
- Assistance in project evaluation.

b. Consultant Teachers

Four consultant teachers (nine during the summer) and one part-time instructional aide were assigned to assist the project manager as proposed. Their duties included the following:

- Assisting the project manager in interviewing, selecting and assigning college students for tutorial positions.
- Assisting the project manager in organizing and conducting pre-service and in-service for tutors and teachers.
- Preparing guides on tutorial techniques for the tutors' use.

- Assisting the project manager in analyzing tutors' reports and records.
- Supervising, observing and assisting tutors in the schools and assisting in the evaluation of tutors.

c. Clerks

Five full-time and one part-time clerk were assigned to the Resident Tutor Project as proposed. The clerks performed the following functions:

- Maintaining records and data under the supervision of the project manager;
- Performing general clerical duties;
- Assisting in compiling and distributing tutors' evaluation reports.

d. Tutors

The project employed 763 tutors during the 1971-72 school year and 447 during the 1972 summer school session. They were recruited from local colleges and universities to provide individualized instruction to students experiencing difficulty in learning specific concepts and to reinforce classroom instruction in basic skills. Of the 763 tutors, 678 were assigned to 68 elementary and two secondary schools in the Cleveland Public schools, and 85 were assigned to serve in 21 elementary and two secondary schools in non-public school systems. An additional 84 tutors were assigned to seven other Title I programs in the Cleveland Public Schools. These programs were as follows:

- English as a Second Language Program
- Pre-Primary Program
- Child Development Program
- Latin Cultures Program
- Talking Typewriter Program
- Reading Improvement Program
- Diagnostic Reading Clinic

2. Organizational Details and Activities

Recruitment of tutors took place three times a year, in September, January and late March. To obtain college students to make application for positions as tutors, the project staff notified university admissions offices, financial aid departments and counselors. In the four years of operation, however, the project has become quite well known among local institutions, and very little active recruitment is still required. During the school year, the majority of applicants for positions as tutors came from the following universities:

Cleveland State University

Case-Western Reserve University

Cuyahoga Community College

St. Johns College

John Carroll University

Ursuline College

Baldwin-Wallace College

Wilberforce University

During the summer program, applicants came from colleges and universities from all over Ohio.

Tutors were assigned to schools in response to requests by the principal who then assigned them to individual teachers who had requested service or whom the principal felt needed service. Schools were given priority in the assignment of tutors according to their enrollment and their rank on the "poverty index", the percentage of their student population receiving public assistance.

Tutors were assigned for two to five days of service per week and for two to three hours per day. Each tutor put in a minimum of two days per week and two hours per day. Each school was required to keep records of the tutors that served and the length of service provided by each. Each teacher to whom a tutor was assigned was required to submit a quarterly report listing the children tutored, the subject areas tutored, the length in weeks of tutoring service and a rating of each tutee's progress. Each tutor was evaluated by the teacher to whom he was assigned and one of the project consultant teachers. Tutors were evaluated on the basis of attendance, punctuality, dependability, appearance, and job performance.

3. In-Service Training

Pre-service and in-service training was mandatory for all tutors who were hired, and took place three times per year each time a new cadre of tutors was hired. Tutors assigned to other Title I projects were trained separately by personnel from those projects. Before they were assigned to schools, all tutors attended a three hour pre-service workshop dealing with the philosophy and goals of the Resident Tutor Project and in which procedures and tutors' record-keeping responsibilities

were explained. About ten days after their assignment to a particular school, all tutors attended a second three hour workshop on tutorial techniques for use in reinforcing basic skills in reading, writing and math. In addition to the workshops, each tutor received a set of guidelines containing the required record forms, details of procedures to be followed and suggestions for establishing a good working relationship with the tutees. In addition to the formal training sessions, the tutors also received on-the-job training and supervision from the project consultant teachers.

Teachers also received in-service training under the Resident Tutor Project. In each school served by the project, the principal selected two teachers to attend a three-hour in-service workshop, one teacher representing the primary grades and one teacher representing the upper elementary grades. The in-service session was conducted in small groups supervised by the project's consultant teachers and focused on helping teachers use tutors effectively, communication between teacher and tutor, and the role of the supervising teacher. Like the tutors, the teachers received a handbook containing procedures to be followed and records to be kept. The teacher in-service workshop was held twice during the year, with a different group of teachers from each school attending each workshop. The teachers attending the workshop were expected to convey what they had learned to their collegues in in-service meetings at their home school, but according to the project manager this was seldom done due to lack of time.

4. Parent Involvement

Each tutor was required to send a letter to the parents of each of his tutees, informing them that their child was being tutored, what academic areas the child was being helped with, and inviting the parent to the school to observe.

In addition to the personal communication from tutor to parent, a parent advisory committee was established to involve parents in the project. The committee was designed to include representative parents from each of the three subdistricts of the Cleveland Public Schools as well as parochial schools. The purpose of the committee was to permit parents to provide input into project planning, request project staff to explain the program to community groups, attend pre-service and in-service training, and participate in workships designed to aid them in helping their children at home.

During the 1971-72 school year, the project manager reported that the parent advisory committee was not fully functional in the sense of holding regularly scheduled meetings. One organizational meeting was held in which members provided input for the project proposal, but no more meetings were held after that. However, several individuals attended the in-service sessions for tutors. The project manager has suggested that inasmuch as parents seldom have direct contact with the project staff, since parent involvement is usually at the school rather than at the project level, and since tutoring service is selective and periodic, there is little reason

to maintain a formal parent advisory committee for the project. Although all aspects of the operation should continue to remain open to parents, the nature of the project is such that parent input would be better handled at the local school level.

In addition to the parent advisory committee, a tutor advisory committee was formed to provide a sounding board for project operations. The committee also produced issues of "Tutors' Communique" a periodic publication carrying news of the project and suggestions for tutoring techniques.

IV. EVALUATION

A. Basic Design

The evaluation plans for the Resident Tutor Project that were outlined in the project proposal were phrased in terms of pre and post measures with experimental and control comparisons. However, the extreme variability in the frequency, length and duration of tutoring sessions, the variability in tutor and tutee turnover, and the variability in the number of tutees per classroom were conditions that were not ideal for collecting valid comparative data. Consequently, information for assessment of project operations and impact during 1971-72 consisted of descriptive data obtained from interviews with project personnel, ratings submitted by classroom teachers, and demographic data obtained from project records.

B. Presentation of Findings

The evaluation activities were addressed to the two basic evaluation questions about project operations and results, and the findings will be organized in the same way. Each basic evaluation question will be posed, followed by an examination of the data

that are pertinent to that question. Included where appropriate will be a description of instrumentation and data collection procedures.

EVALUATION QUESTION 1

WERE THE PROJECT SERVICES IMPLEMENTED ACCORDING TO PLAN?

1. Data Collection

Data pertinent to Evaluation Question 1 were collected through interviews with the project manager and through a series of interviews with 54 teachers and 7 principals in 20 Title I schools conducted for the Division of Research and Development by The Psychological Business Research Corporation of Cleveland.

2. Assessment of Implementation

The information presented under the Project Description section of this report indicates that the basic ingredients of the program were provided essentially as proposed. Further information as to the effectiveness of the project's operation is available, however, from the comments of principals and teachers participating in the project.

a. Principals

The reaction of the principals to the Resident Tutor Project was uniformly positive. In attempting to define the element that made the greatest contribution to the project's success, five of the seven stressed pupil-tutor interaction, specifically the one-to-one contact between tutor and tutee. The remaining two principals placed emphasis on the teacher-tutor coordination and cooperation.

With respect to the adequacy of the tutors' training the seven principals reported that from 75 to 100 percent of the tutors working in their buildings were adequately trained for the job.

The greatest weakness of the project, according to the principal was the turnover in tutors coupled with the lack of advance notice of impending changes in tutors and their schedules. Four of the seven principals cited tutor turnover as the greatest weakness; other weaknesses, each identified by one principal were as follows:

- Teachers are not trained in effective use of tutors
- Teachers not given a written schedule of what the tutor covers
- Not enough tutors
- Need for tutor workshops
- Tutoring schedules cause children to miss other classes
- Inadequate facilities for tutors
- "Tutors in miniskirts present some problems"

When asked what changes they would recommend for future operations, three of the seven principals suggested a reduction of tutor turnover, perhaps through requiring a full year of service. Two others recommended that tutors be held accountable for their work through progress reports on the children they serve. Other suggestions, each given by one principal, included the following:

- More flexibility

- Better assessment of the number of tutors needed, by grade levels and hours of the day
- More workshops for tutors
- Recruitment of more tutors
- More observation of tutors by college personnel

b. Teachers

Like the principals, the teachers' attitude toward the Resident Tutor Project was generally enthusiastic. When asked to identify the element that they felt made the greatest contribution to the program, the 54 teachers interviewed responded as indicated in Table 4.

Table 4

Teacher Estimates of Most Valuable Element of Resident Tutor Program

Element of Program	Percentage of Teachers
Individual contact; one-to-one interaction	63%
Personnel	41%
Procedures	7%
Materials	6%
Personnel, procedure and service, equally	4%
Program is no good	4%

(The percentages add to more than 100% because of multiple responses.) Like the principals, the teachers indicated that the tutors (personnel) and the individualized attention they provided the children were the most valuable elements of the project.

With respect to the adequacy of the tutors' training, the teachers appeared somewhat less satisfied than the principals. Their responses to the question of the adequacy of tutors' training appear in Table 5.

Table 5

Teacher Evaluation of Tutor Training

Response	Percentage of Teachers
Yes, they are adequately trained	61%
No, they are not adequately trained	15%
Some are adequately trained, but others are not	13%
In general they are well trained, but they need some specialized training	9%
They need training in heeding the teacher's suggestions	2%

In responding to a question on the project's greatest weakness, 16 of the teachers or 30% reported that the project had no weaknesses. The remaining 38 teachers responded as indicated in Table 6.

Table 6

Teachers' Estimates of Program Weaknesses

Weakness	Percentage of Teachers
Lack of sufficient time for tutoring	21%
Inadequacy of tutors' training	18%
Poor communication and coordination between teacher and tutor	16%
Lack of materials	11%

Although other weaknesses were identified, each was given by 5% or fewer of the teachers. The greatest weaknesses in the project as perceived by the teachers related to the time alloted for tutoring, tutor training, and teacher-tutor coordination. Tutor turnover, identified by the principals as the greatest weakness, was mentioned by fewer than 5% of the teachers.

When given an opportunity to recommend changes for the future operation of the project, the 54 teachers responded as indicated in Table 7.

Table 7

Teacher Recommendations for Changes in Project Operation

Recommendation	Percentage of Teachers
Give the tutors more training	37%
Provide more time for tutoring, preferably daily tutoring	24%
Provide more time for teacher-tutor conferences	21%
Recruit more tutors	18%
Improve selection of tutors	7%

The percentages add to more than 100% because of multiple responses. Other recommendations were made, each suggested by 5% or fewer of the teachers. The recommended changes related directly to the weaknesses previously identified.

Despite the foregoing criticisms of the project, both principals and teachers tended to react to the program with considerable enthusiasm, and the prevailing opinion seemed to be that the program should be continued.

EVALUATION QUESTION 2

WHAT WAS THE IMPACT OF THE PROJECT ON THE CHILDREN SERVED?

1. Academic Achievement

The 54 teachers interviewed by the Psychological Business Research Corporation were asked to indicate the number of children in their class that were receiving tutoring service in reading and in math and then to estimate the numbers of children making varying degrees of progress in these areas. The response distributions appear in Table 8.

Table 8

Mean Teacher Ratings of Tutees' Progress in Reading and Math Skills

Teachers Responding	Subject Area Tutored	Mean Percentage of Children Rated			
		Marked Improvement	Improvement	Some Improvement	Little or No Improvement
47	Reading	23%	23%	35%	19%
41	Math	33%	22%	31%	14%

The teachers' responses ranged from 100% of the children showing "Marked Improvement" to 100% showing "Little or No Improvement". The table shows that, according to the teachers' estimates, a little less than half of the children tutored showed moderate to marked improvement in the reading skills in which they received tutoring, and that a little over half showed moderate to marked improvement in math. By the same token, however, the teachers estimated that about half of the children tutored made only little or some improvement. The conclusion these data suggest is that, at least according to teachers' estimates, the Resident Tutor

Project had, overall, a moderate impact on childrens' performance in the reading and math skills for which they received tutoring.

2. Attitude and Motivation

The 54 teachers interviewed were asked to estimate the number of tutees who had made varying degrees of progress in improving attitude and motivation for school work. The response distribution appears in Table 9.

Table 9

Mean Teachers' Ratings of Changes in Tutees' Attitude and Motivation

Rating	Mean Percentage of Children Rated
Marked Improvement	38%
Improvement	22%
Some Improvement	29%
Little or No Improvement	11%

The table shows that more children (60%) were rated as having moderate to marked improvement in attitude and motivation that were similarly rated in academic performance. It would appear that the Resident Tutor Project had a slightly greater impact on improving tutees' attitudes than their academic performance.

V. CONCLUSIONS AND RECOMMENDATIONS

A. Discussion of Results

The data collected for the 1971-72 operation of the Resident Tutor Project showed that the project was implemented according to plan. The project staff was recruited, trained, and assigned as proposed. Although the nature of the project made the collection of objective measures of achievement difficult, ratings by classroom teachers indicated that tutoring service had a moderate impact on the reading and math performance of the children served. Teachers' ratings indicated a slightly greater impact on improving the attitudes of the tutees.

Although the reaction to the project of principals and teachers alike was positive both groups found some problems with the operation of the project. The principals considered tutor turnover a detriment to smooth operation and several suggested obtaining a commitment from tutors for a longer term of service. However, considering the fact that tutors' opportunities to work depend to a large extent upon their college class schedules which may change every quarter, tutor turnover may be an unfortunate but unavoidable fact of life that the schools must live with.

Teachers were concerned not so much with tutor turnover as with the amount of time tutors were able to spend with children, the adequacy of the tutors' training, and the opportunities for communication between teacher and tutor. The time tutors spend with the children and the time for teacher-tutor conferences again depend to a certain extent on the tutor's schedule and time commitment. Tutors' training, however, is an area totally within the

control of the project staff, and steps might be taken to secure more teacher input into the content of the tutor in-service workshops. On the other hand, it is possible that teachers might expect too much from tutors and that they need more help in understanding how to use this resource effectively, considering the tutors' limitations as well as the opportunities for improved instruction they make possible. Although in-service training addressed specifically to this end is offered to teachers, it is offered to representative teachers from each school served, and the representatives are expected to carry the word back to the other teachers through in-service meetings at the local school level. According to the project manager, very little in the way of in-service is conducted at the schools, primarily because of lack of time.

Despite problems identified by teachers and principals, the prevailing opinion among those interviewed was that the Resident Tutor Project was valuable and should be continued.

B. Recommendations

In light of the evaluation information collected during the 1971-72 operation of the Resident Tutor Project, the following recommendations are made:

1. It is recommended that steps be taken to increase the involvement of the project parent advisory committee through encouraging regularly scheduled meetings with the participation of project staff.

2. It is recommended that teacher-identified training requirements be build into the in-service workshops for tutors.

3. It is recommended that more time for teacher-tutor discussions of the tutee and of the tutor's role be built into the program, perhaps as a requirement for a teacher's receiving the tutoring service.

4. It is recommended that product evaluation be directed toward assessing the success with which a sample of children achieve specific, individualized, short-term instructional objectives rather than toward measuring general improvement in reading and math through the administration of standardized tests.